THE USE OF MCKINSEY'S 7S FRAMEWORK AS A STRATEGIC PLANNING AND ECONOMIC ASSESTMENT TOOL IN THE PROCESS OF DIGITAL TRANSFORMATION

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ABSTRACT
Purpose- It is aimed to evaluate the maturity of the business through the transition to digital transformation under McKinsey's criteria.
Methodology- The aim of this study is to make an organizational structure and economic assessment of enterprises in the digital
transformation process and to contribute to the literature. In this evaluation, the criteria and sub-criteria of the 7S's framework will be
modelled in accordance with the Multi-Criteria-Decision-Making methodology. In this study, McKinsey's 7S's dimensions have been clustered
with the digital transformation criteria. In this clustering, the weights of the criteria have been determined by using AHP method and the
maturity assessment of the business for digital transformation has been reached. In the study, 5 expert managers were asked to evaluate
the criteria among themselves. Afterwards, a survey of company employees has been conducted to evaluate the maturity for business. The
questions through the survey about the stages they carried out during the company's digital transformation process have been asked to the
business employees.
Findings- In the model digital transformation criteria were defined for business according to McKinsey's 7S. The weights of the criteria have
been determined during the digital transformation stage in the enterprises. Finally, the maturity of digital transformation of the enterprise
has been determined.
Conclusion- The study provides a maturity assessment methodology which is an important part of digital transformation process. It is planned
to provide benefits both for the practitioners and academics focusing on maturity assessstment in business for the digital transformation.

Keywords: Digital transformation, maturity assesstment, McKinsey's 7S, ahp.
**JEL Codes:** O31, M15, C44

1. INTRODUCTION

Nowadays, it is seen that in many enterprises, organizational structures are used to evaluate the existing performance and increase
productivity and as a result positive results are reached. One of the approaches that make an organizational structure consistent is the
McKinsey's 7S Model. This model was developed in the early 1980's with the help of Julien Philips and Anthony G. Athos by consultants
named Tom Peters, Robert Waterman, who worked for the consulting firm McKinsey and the Company. The model is widely used by
academics and practitioners and remains one of the most popular strategic planning tools (Şalvarlı & Doğu, 2018). This model is a dynamic
application that plays an active role in structuring businesses. Four important steps are followed in the implementation of the model. First
of all, with current analysis and structure, identifying deficiencies and ineffective elements in line studies and processes, internal dynamics,
shared values, vision and mission. In the second step, the determination of the change and transformation targets that can be applied to the
enterprise. In the third step In line with the objectives that may be required in the job and making an action plan and the last step is the
restructuring according to the plan. It will be necessary to determine how possible changes in the model elements affect each other during
the restructuring process. The McKinsey's model will be applied in order to achieve the goal of adapting to the national and international
competitions, thus contributing to the restructuring of the enterprises (Davutoğlu, Akgül, & Yıldız, 2016). This model, mainly comprises seven
independent factors (Figure 1), which are classified as hard elements (strategy, business structures, systems) and soft elements (management
styles, shared values / corporate culture, human resources and capabilities). It is found that the soft elements are generally influenced by
corporation culture and more rigid elements are affected by management culture. Although it is more difficult to define and manage soft

elements, they have strategic importance in terms of originality, establishment of organizational structure, and significant contribution to provide competitive advantage (Ülgen & Mirze, 2004), (Ravanfar, 2015).

Figure 1: McKinsey's 7S: Hard and Soft Strategies (Ravanfar, Analyzing Organizational Structure Based on 7s Model of, 2015)
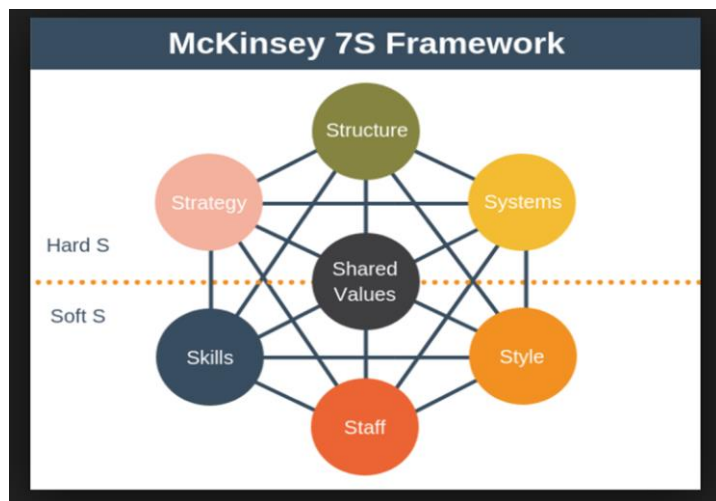
As shown in the Figure 1, the shared values are in the middle of the model and are central to the development of other critical elements. There is an intense interrelation between the elements of the model. A change in any of the elements affects all other elements. Therefore, all operations related to the creation and management of elements should be carried out by competent and skilled managers who possess the necessary knowledge and skills to understand the scope and properties of the elements. In the context, digital transformations of the enterprises have been examined. The digital transformation process should be carried out in accordance with the structure of the enterprise, the working system, the competence of the personnel, the vision and mission of the enterprise.With the advent of new digital technologies, companies have begun to use the digital technologies extensively (Reis, Amorim, Melao, & Matos, 2018). This type of transformation frequently involves the transformation of key business activities. In order to manage these complex transformations, companies must change management practices as well as product and process transformation (Matt, Hess, & Benlian, 2015). Thus, the companies is facing a completely fast and radical change due to the maturation of digital technologies and their ubiquitous penetration of all markets (Ebert & Duarte, 2016). To add to the increased demand from customers, companies are facing ever tougher competition due to globalization (Westerman, Calmejane, Bonnet, Ferraris, & Andrew, 2011) and forcing to be digitalized likewise others have done before, seeking to survive and attain competitive advantages (Bharadwaj, 2000). In the light of this information, the objective of this study is to define the maturity assesment of the business for digital transformation. A maturity model consists of dimensions and criteria, which describe the areas of action, and maturity stages that indicate the evolution path towards maturity. For this aim, an integrated methodology including McKinsey's 7S methodology and digital transformation process with, Analytical Hierarchy Process (AHP) has been utilized. This proposed methodology is applied in a software company in Turkey. The remainder of this study is organized as follows: "Section 2" provides the literature review. "Section 3" presents the data and methodology. Findings are given in "Section 4" and finally "Section 5" includes the conclusion with the references following.

2. LITERATURE REVIEW

In the study, the studies about the performance evolution related with the institutions and enterprises using McKinsey's 7S criteria and other methods, have been examined. In study of (Pothiyadath & Wesley, 2014) was about organisations used every possible methods and strategies to gain competitive advantage in the market place. Such a strategy involved gaining internal strength using the human resources of the organisation. Many methods have been evolved in the context; however, a composite framework has been developed by McKinsey called the 7S framework. However, a brief review of literature indicated that no fit scale is available to measure the implementation of 7S framework. The study maked an attempt to develop a measurement scale on 7S framework on the public sector undertaking company, the Kerala State Electricity Board (India). In study of (Ahmadi, Martin, Yeh, & Papageorgiou, 2015) was developed a new approach for managing interrelated activities using fuzzy cognitive maps (FCMs) and the fuzzy analytical hierarchy process (FAHP). This approach enables the organization firstly to identify the readiness-relevant activities, then to determine how these activities influence each other, after that to assess how these activities will contribute to the overall readiness and finally to prioritize these activities according to their causal interrelationships to allocate management effort for the overall readiness improvement. The approach first used FCMs and a fuzzy connection matrix to represent all possible causal relationships between activities, then used FAHP to determine the contribution weights and used FCM inference to include the effects of feedback between the activities. Based on the contribution and interrelationships between activities, a management matrix was developed to categorize them into four management zones for effective allocation of limited management efforts. An empirical study was conducted to demonstrate how the approach works. In study of (Shiri, Anvari, & Soltani, 2015) was to identify and prioritize the organizational readiness factors for implementing ERP based on organizational agility. Along with the extension of McKinsey's 7S model (strategy, structure, systems, skills, style, staff, shared values) to 9S (7S+ self-evaluation and supportive factors) model, agility criteria were weighted and rated using group AHP with fuzzy logic approach; so that accountability, speed and flexibility have gained their maximum score. The nine organizational readiness factors were ranked using integrated FAHP and TOPSIS method based

on five criteria of agility. The framework was proposed to a real case of Shiraz distribution cooperative firms.   Results showed that among the nine organizational dimensions based on agility, the two added to McKinsey dimensions (self-evaluation and supportive factors) have been ranked. In the study, the proposed framework helped the firms "to implement ERP system with agility approach" concentrate on effective empowerments and develop strategies based on their own priority. In study of (Halepoto, Sahito, Uqaili, Chowdhry, & Riaz, 2015)**,** the smart city transformation process has distributed into three strategic phases; 1) Smart city vision and status assessment, 2) Smart city transformational initiatives and 3) Smart city development and implementation. The execution of every phase towards smart city transformation is somehow linked with each other and is impacted by different parametric factors which need to be identified. This paper attempted to identify those factors for every phase of smart city transformation based on SWOT analysis. Based on SWOT analysis, an integrative framework was also proposed to explain the relationships and impacts of those factors. In study of (Henriette, Feki, & Boughzala, 2015), about digital transformation literature. Digital market has never been so unstable due to more and more demanding users and new disruptive competitors. CEOs from most of industries investigate the digitalization opportunities. Through a systematic literature review, it was found that the digital transformation was more than just a technological shift. According to the study, these transformations have had an impact on the business models, the operational processes and the end-users' experience. Considering the richness of this topic, it has had proposed a research agenda of the digital transformation in a managerial perspective. In study of (Berghaus & Back, 2016), about maturity of the digital transformation. This research derived from typical stages in a digital business transformation process from empirical data. The nine dimensions of the digital maturity model (DMM) provide a more profound understanding of the relevant levers for managing digital transformation. The DMM was implemented together with a survey of 547 individuals from 417 organizations in Switzerland and Germany. Based on the survey data, it was used the Rasch-algorithm and cluster analysis to derive five maturity stages. The findings was showed that while digital affinity and experimenting with digital technology are already prevalent in companies, a strategically planned transformation and usage of advanced data analytics in business processes are less common. The results from this study was yield insights into how activities in digital business transformation are currently tackled and prioritized and thus contribute to the body of knowledge about organizational transformation. In an another study (Gökdeniz, Kartal, & Kömürcü, 2017), the strategic assessment of a business organization was conducted within the context of McKinsey's 7S model. The proposed model in the study has included the factors of strategy, structure, style, systems and procedures, skills, shared values, and staffs. The interaction between the factors of the 7S model, which is grounded in the business assessment, was taken into consideration in the study. Therefore, the Analytic Network Process (ANP) technique, which enables to analyze the model's this interactional and relational situation, was used. It has been understood that the assessment of a business organization in the frame of the 7S model could be done with the model which was proposed in the conclusion of the study. Along with this, the current performance level of each sub-factor in the 7S model could be answered in consequence of analysis. These results of the study have given an idea about to what extent a business organization has access to their goals, in the context of the 7S model. Finally, in study of (Bismark, Kofi, Frank, & Eric, 2018) , about efficient and effective implementation of organizational strategy that largely depends on several factors. Among these factors are the organizational structure, systems, style, shared values, skill among others which includes external threats and competition. McKinsey's 7S model and other tools such as PESTLE, BSC and SWOT Analysis have been the tools that most professional institutions use to evaluate overall performance of the organization. This study, the above was mentioned tools were used to ascertain in-depth analysis of the performance of The Community Hospital Group in Ghana. Survey analysed technique was used for the study to investigate the day to day operations of seven major units of the organization within the five corporate branches. Primary data was collected from fifty respondents, five management members for interview and forty-five core staff members for questionnaire, were used. The key among the findings of the study was the call for complete restructuring of the Community Hospital Group.

3. DATA AND METHODOLOGY

3.1. The Proposed Methodology: An Integrated Approach of McKinsey's 7S Framework Criteria and Its Sub-Criteria to the Digital Transformation by Using AHP

In this paper, an integrated approach of McKinsey's 7S framework criteria and sub-criteria to the digital transformation by using AHP. The proposed model enables to obtain the percentage of the digital transformation maturity of the enterprise. The analysis of the maturity of digital transformation process of enterprises has come into question within the transition to industry 4.0 in recent years. In this process, McKinsey's 7S model, which is used dynamically in enterprises, is used. The criteria in the digital transformation process are grouped according to 7S dimensions in the enterprise. The digital transformation criteria have been weighted according to the AHP. AHP is an effective Multi Criteria Decision Making (MCDM) tool for setting priorities with calculated weighted values. A survey has been applied to the employees in order to examine the consistency of the criteria within themselves and to determine the maturity of the enterprise in the digital transformation process on a per-user basis. According to the results of the survey and the current situation of the enterprise, the performance of the enterprise has been obtained. By calculating the maturity level of enterprises as a percentage, then it is easily seen which variables are deficiencies on the basis of the enterprise. It is the first that the study has been conducted with the criteria in the digital transformation process. In addition, the digital transformation process has been applied in a firm in the software sector and then it has been presented as a solution proposal to that business. The flowchart of the study is shown in Figure-2 below.

Figure 2: Flowchart of the Study
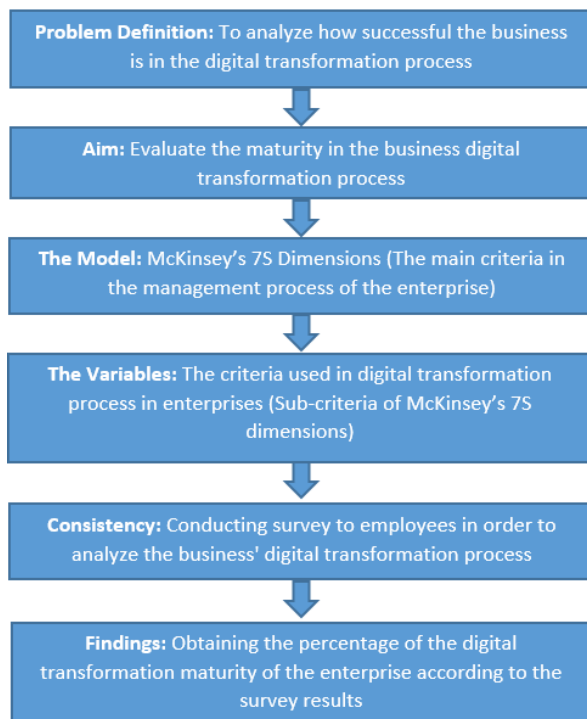
When the methodology of Analytic Hierarchy Method would be mentioned, AHP is a multi-criteria decision-making approach and was introduced by Saaty (1977 and 1994). In general, AHP is implemented to compute the vector of criteria weights, compute the matrix of option scores, rank the options. However, in this study AHP is used only for computing the vector of criteria weights. To specify the relative importance of criteria, the values between 1 and 9 is used.The related data have been derived by using a set of pairwise comparisons. These comparisons have been used to obtain the weights of importance of the decision criteria, and the relative performance measures of the alternatives in terms of each individual decision criterion.

3.2. Data

The study has been applied to a real business scenario. The company is located in Istanbul and serves in the software industry, and has been providing external consultancy services for 10 years. It has made the transition to the digital transformation in the last 3 years and aims to continue this transformation more effectively. In this study, a group of 3 experts has taken part. One of the experts is "project manager", and has a total of 20 years experience in the IT sector and business applications. The "specialist" in the expert group is a test engineer with 8 years of experience and previously used different softwares. Another expert is a professor in the related field. The academician has 25 years of work experience and teaches courses on project management and software. Before the meeting, a literature search has been made by the academician and a list of digital transformation criteria has been created (Shiri, Anvari, & Soltani, 2015), (Gökdeniz, Kartal, & Kömürcü, 2017), (Ahmadi, Martin, Yeh, & Papageorgiou, 2015), (Berghaus & Back, 2016), (Bismark, Kofi, Frank, & Eric, 2018), (Pothiyadath & Wesley, 2014) . At the first meeting, the literature has been examined with the project team and the number of criteria has been reduced and some new criteria has been added. In the second meeting, the evaluations regarding to the criteria has been weighted by the experts. After evaluating the data that had been entered, final values were agreed at the last fourth meeting. Meetings have lasted for an average of 75 minutes and have been completed on a for 6-week-calendar time. The criteria weights have been determined by AHP method and strategies for the enterprise have been weighted. And then, the application has been evaluated by the users in terms of the adaptation of the employees to the digital transformation process and the applications of the enterprise have been evaluated by the users. A survey has been applied to the employees within the scope of digital transformation transition process in the literature (Gill & Shan, 2016), (Henriette, Feki, & Boughzala, 2015). 100 people in the business are actively using digital transformation technologies. The survey has been applied to the employees and applied independently from the managers.

4. FINDINGS

After the application of the proposed methodology, the local weights, global weights and scale values from the survey have been obtained. As seen in Table 1, "Strategy" main criterion is found as the most important criteria for the digital transformation in case of the company because it has the highest dependent weights. Similarly, all the other criteria and sub-criteria have been obtained. And then expressions of the competences of the business on the basis of criteria and the corresponding linguistic evaluations have been obtained. Scale values have been ranged from 0 to 1, in which 1 is the best scale value.

Table 1: Empirical Maturity Assessment for the Business

7S Main Factors (Main Criteria)	Dependent Weights	7S Sub factors (sub-criteria)	Local Weights	Global Weights (GW)	Linguistic Evaluations	Scale Value (SV)	Level of Subfactors (GW*SV)
Strategy	0,21882627	SY1	0,38706813	0,084701	CE	1,00	0,08470068
		SY2	0,08472870	0,018541	PA	0,50	0,00927043
		SY3	0,09505428	0,0208	PA	0,50	0,01040018
		SY4	0,16570793	0,036261	CE	1,00	0,03626125
		SY5	0,26744094	0,058523	AE	0,75	0,04389232
Structure	0,14869488	SE1	0,27530165	0,04093594	CE	1,00	0,04093594
		SE2	0,23838081	0,03544600	AE	0,75	0,02658450
		SE3	0,18088017	0,02689595	AE	0,75	0,02017196
		SE4	0,11922245	0,01772777	AE	0,75	0,01329582
		SE5	0,10907562	0,01621898	PA	0,50	0,00810949
		SE6	0,07713927	0,01147021	PA	0,50	0,00573510
Style	0,11912677	SL1	0,06528529	0,00777722	PA	0,50	0,00388861
		SL2	0,16174117	0,01926770	AE	0,75	0,01445077
		SL3	0,37099274	0,04419517	CE	1,00	0,04419517
		SL4	0,12450999	0,01483247	CE	1,00	0,01483247
		SL5	0,10410407	0,01240158	AE	0,75	0,00930118
		SL6	0,17336671	0,02065261	AE	0,75	0,01548946
Systems	0,11634905	SS1	0,29282890	0,03407036	PA	0,50	0,01703518
		SS2	0,10951306	0,01274174	PA	0,50	0,00637087
		SS3	0,04895785	0,0056962	PU	0,25	0,00142405
		SS4	0,21360880	0,02485318	CE	1,00	0,02485318
		SS5	0,09879786	0,01149503	PA	0,50	0,00574751
		SS6	0,0619821	0,00721155	PA	0,50	0,00360577
		SS7	0,07996162	0,00930346	CE	1,00	0,00930346
		SS8	0,09434977	0,01097750	AE	0,75	0,00823313
Skills	0,14606638	SK1	0,22879188	0,03341880	CE	1,00	0,03341880
		SK2	0,10140105	0,01481128	AE	0,75	0,01110846
		SK3	0,17208139	0,02513530	AE	0,75	0,01885147
		SK4	0,19496211	0,02847741	AE	0,75	0,02135805
		SK5	0,12609176	0,01841776	PA	0,50	0,00920888
		SK6	0,07785003	0,01137127	PA	0,50	0,00568563
		SK7	0,09882176	0,01443453	PA	0,50	0,00721726
Shared Values	0,164190498	SV1	0,12	0,01978535	AE	0,75	0,01483901
		SV2	0,09	0,01398435	CE	1,00	0,01398435
		SV3	0,16	0,02631071	CE	1,00	0,02631071
		SV4	0,30	0,04913793	AE	0,75	0,03685345
		SV5	0,33	0,05497213	AE	0,75	0,04122910
Staff	0,08674612	SF1	0,1724242	0,01495713	PA	0,50	0,00747856
		SF2	0,0907575	0,00787286	PA	0,50	0,00393643
		SF3	0,2857575	0,02478836	PU	0,25	0,00619709
		SF4	0,4646969	0,0403106	CE	1,00	0,04031066
TOTAL PERFORMANCE DEGREE							**0,776077**

5. CONCLUSION

In this paper, a maturity assessment model for the digital transformation has been proposed. For this aim, firstly, McKinsey's 7S dimensions have been identified as the main criteria for businesses and then digital transformation criteria have been investigated via literature review and survey methods. As an output of this part, the most important criteria categories have been stated as "Strategy", "Shared Values", "Structure", "Skills", "Still", "Systems", "Staff" in an descending order. And then the weights of sub-criteria which are the digital transformation criteria and corresponding linguistic evaluations have been determined according to the survey results. It has been seen that the business' current performance degree is approximately 78%. From this point of view, the maturity model in the digital transformation process has been obtained and it has been tried to explain the criteria that the enterprise ought to improve in order to bring the performance of the enterprise to 100%.

REFERENCES

Ahmadi, S., Martin, R., Yeh, C.-H., & Papageorgiou, E. (2015). An FCM–FAHP approach for managing readiness-relevant activitiesfor ERP implementation. Computers&Industrial Engineering, 501-517.

Berghaus, S., & Back, A. (2016). STAGES IN DIGITAL BUSINESS TRANSFORMATION: RESULTS OF AN EMPIRICAL MATURITY STUDY. MCIS 2016 Proceedings (s. 1-17). Paphos, Cyprus: AIS Electronic Library.

Bharadwaj, A. S. (2000). A Resource-Based Perspective on Information Technology Capability and Firm. MIS Quarterly, 169-196.

Bismark, O., Kofi, O. A., Frank, A.-G., & Eric, H. (2018). Utilizing Mckinsey 7s Model, SWOT Analysis, PESTLE and Balance Scorecard to Foster Efficient Implementation of Organizational Strategy. Evidence from The Community Hospital Group- Ghana Limited. International Journal of Research in Business, Economics and Management, 94-113.

Davutoğlu, N., Akgül, B., & Yıldız, E. (2016). 7'S Kuramının Büyük Ölçekli İşletmelerde Stratejik Planlama ve Ekonomik Performansı Değerleme Aracı Olarak Kullanılması. Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi XL, 135-161.

Ebert, C., & Duarte, C. H. (2016). Requirements Engineering for the Digital Transformation: Industry Panel. 2016 IEEE 24th International Requirements Engineering Conference (RE) (s. 4-5). Beijing, China: IEEE.

Gill, M., & Shan, V. (2016). The Digital Maturity Model 4.0. Cambridge, USA: Forrester Research.

Gökdeniz, İ., Kartal, C., & Kömürcü, K. (2017). Strategic Assessment based on 7S McKinsey Model for a Business by Using Analytic Network Process (ANP). International Journal of Academic Research in Business and Social Sciences, 342-353.

Halepoto, I. A., Sahito, A. A., Uqaili, M. A., Chowdhry, B. S., & Riaz, T. (2015). Multi-criteria Assessment of Smart City. 2015 5th National Symposium on Information Technology: Towards New Smart World (NSITNSW) (s. 1-6). Riyadh, Saudi Arabia: IEEE.

Henriette, E., Feki, M., & Boughzala, I. (2015). THE SHAPE OF DIGITAL TRANSFORMATION: A SYSTEMATIC LITERATURE REVIEW. Information Systems in a Changing Economy and Society: MCIS2015 Proceedings (s. 431-443). Samos, Greece: AIS Electronic Library.

Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. Business & Information Systems Engineering , 339-343.

Pothiyadath, R., & Wesley, J. (2014). Developing a Measurement Scale for 7-S Framework. IOSR Journal of Business and Management, 14-16.

Ravanfar, M. M. (2015). Analyzing Organizational Structure Based on 7s Model of. Global Journal of Management and Business Research: A Administration and Management, 6-12.

Ravanfar, M. M. (2015). Analyzing Organizational Structure Based on 7s Model of McKinsey. International Journal of Academic Research in Business and Social Sciences, 43-55.

Reis, J., Amorim, M., Melao, N., & Matos, P. (2018). Digital Transformation: A Literature Review. Trends and Advances in Information Systems and Technologies. WorldCIST'18 (s. 411-421). Galicia, Spain: Springer, Cham.

Shiri, S., Anvari, A., & Soltani, H. (2015). Identifying and prioritizing of readiness factors for implementing ERP based on. European Online Journal of Natural and Social Sciences, 56-74.

Şalvarlı, M. S., & Doğu, K. (2018). An Analysis of McKinsey 7-S Model and Its Application on Organizational Efficiency. International Journal of Scientific and Technological Research, 103-111.

Ülgen, H., & Mirze, S. (2004). İşletmelerde Stratejik Yönetim,. İstanbul: Literatür.

Westerman, G., Calmejane, C., Bonnet, D., Ferraris, P., & Andrew, M. (2011). DIGITAL TRANSFORMATION: A ROADMAP. Consulting, MIT Center for Digital Business and Capgemini: https://www.capgemini.com/wp-content/uploads/2017/07/Digital_Transformation__A_Road-Map_for_Billion-Dollar_Organizations.pdf adresinden alındı